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10/564,717	12/08/2006	William Graves	DEP0721USPCT	9858

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EXAMINER

LAWSON, MATTHEW JAMES

ART UNIT	PAPER NUMBER
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3775

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11/17/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/564,717	Applicant(s) GRAVES ET AL.	
	Examiner MATTHEW LAWSON	Art Unit 3775	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/30/2009, 6/30/2009</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 24 disclose the limitation “the pivot control member being attached at or toward the distal end of the pivot control member.” It is unclear how the pivot control member can be attached to the distal end of itself.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-10, 13-18, and 20-25 rejected under 35 U.S.C. 102(b) as being anticipated by Sonnabend et al. (WO 01/34040 A1).

Regarding claims 1-10, 13-18, and 20-23 Sonnabend et al. disclose a bone resection device for use in resection of bone during joint replacement surgery (figures 1-2), the device comprising a handle (32, figure 1); an elongate shaft (4, figure 2) rotatably mounted to the handle (see abstract), the shaft having a shaft axis, a proximal end and

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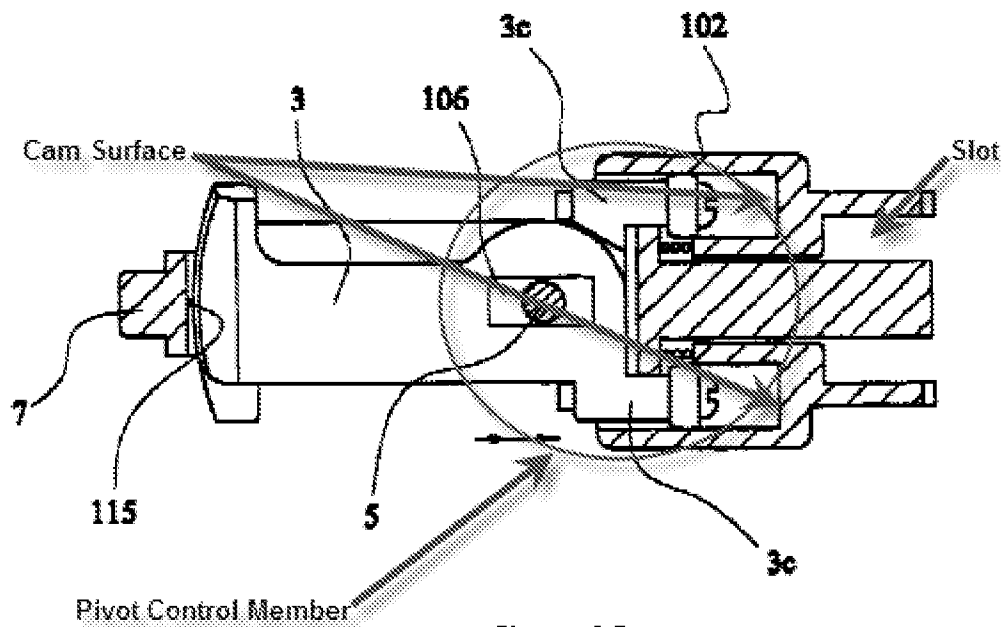
a distal end (figure 1); a cutting tool housing (4b, figure 1) attached to the shaft at or towards the distal end of the shaft; at least one cutting tool (3, figures 1, and 10) fastened to the housing, the at least one cutting tool configured to be movable between a retracted position and an extended position (figures 1 5, 10); and a pivot control member (see figure below) having a proximal end and a distal end, the pivot control member configured to be at least partially disposed about the elongate shaft, the pivot control member being attached at or toward the distal end of the pivot control member to the at least one cutting tool (figure 10), the distal end of the pivot control member and the distal end of the shaft being configured to be axially displaceable (figures 8 and 10, page 8, ¶5) and with respect to one another a predetermined distance, during operation of the device, wherein the at least one cutting tool comprises at least two cutting tools (3, figures 1, 5, 10), wherein each of which is at least partially disposed within the cutting tool housing and each of the at least two cutting tools are in their respective retracted positions (figure 5) wherein each of the at least two cutting tools is pivotally fastened to the cutting tool housing ((page 8, ¶5), and the at least two cutting tools are configured to be fastened to the cutting tool housing in an opposed manner (figure 10) such that when one of the cutting tools is caused to move in one direction the other cutting tool is caused to move to about the same degree in the opposite direction (page 5, (b)), wherein the distal end of the pivot control member is configured to be axially displaceable with respect to the distal end of the shaft a predetermined distance, during operation of the device (figure 1), and further comprising a cam follower (3c, figure 10), and wherein one of the pivot control member and the shaft comprises a cam surface

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(see figure below) configured to accept the cam follower, the cam surface extending in a plane generally perpendicular to the shaft axis and wherein one of the cam surface and the cam follower is fixed relative to the handle (figures 1-2, 10), and the other of the cam surface and the cam follower is fixed relative to the pivot control member (figures 1-2, 10), wherein the cam surface is provided on the proximal end of the pivot control member and the cam follower is fixed relative to the handle (figure 10) and the cam surface is provided on a removable part of the device, and further comprising a locking mechanism (32a, figure 1) configured to lock the axial position of the shaft relative to the handle, and the locking mechanism is configured to be adjustable to provide different locked axial positions of the shaft relative to the handle. Wherein the shaft comprises a connector formation (42, figure 1) configured to be connected to a drive unit for imparting rotational movement to the shaft, and the cutting tool is generally elongate in shape (figure 10), and has a cutting edge towards one end (3a, figure 1) and one of the elongate cam track or follower at its other end, wherein the pivot control member is rotatable, *i.e. capable of rotation*, about the shaft axis, and the pivot control member is connected to the shaft (figures 1-2, 10); the pivot control member is connected to the shaft at or towards the distal end of the shaft (figures 1-2, 10) and one of the pivot control member and the at least one cutting tool has an elongate cam track (2a, figure 5) formed therein and the other of the pivot control member and the at least one cutting tool comprises a follower (3c, figure 5) configured to slide in the cam track; wherein the at least one cutting tool has an elongate cam track (2a, figure 5) formed therein and the pivot control member comprises a follower (3c, figure 5) configured to slide in the cam

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track, and the cutting tool housing has a slot (see figure below) and the follower is configured to extend through the slot and engage with the cam track of the at least one cutting tool, and having a cam follower (3d, figure 5), and wherein the pivot control member is configured to move relative to the shaft (figure 10), and one of the pivot control member and the shaft comprises a cam surface (see figure below) to accept the cam follower, the cam surface extending in a plane generally perpendicular to the shaft axis, and wherein one of the cam surface and the cam followers is fixed relative to the handle, and the other of the cam surface and the cam follower is fixed relative to the pivot control member (figure 10); the predetermined distance is defined by a cam surface located on the proximal end of the pivot control member (figure 10).

**FIG. 10**

Regarding claims 24-25, Sonnabend et al. disclose a bone resection device for

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use in resection of bone during joint replacement surgery (figures 1-2), the device comprising a handle (32, figure 1); an elongate shaft (4, figure 2) rotatably mounted to the handle, the shaft having a shaft axis, a proximal end and a distal end (figures 1-2); a cutting tool housing (4b, figure 1) attached to the shaft at or towards the distal end of the shaft, the cutting tool housing having a slot (see figure below); at least one cutting tool (3, figures 1-2, 5, 10) fastened to the housing, the at least one cutting tool configured to be movable between a retracted position (figure 10) and an extended position (figure 5), the at least one cutting tool having an elongate cam track formed therein (2a, figure 5); and a pivot control member (see figure below) having a proximal end and a distal end, the pivot control member comprising a follower (3c, figure 10) extending generally perpendicular from the distal end thereof and configured to extend through the slot and engage with the cam track of the at least one cutting tool (see figure below), the pivot control member configured to be at least partially disposed about the elongate shaft (figure 10), the pivot control member being attached at or toward the distal end of the pivot control member to the at least one cutting tool (3, figure 10), wherein the distal end of the pivot control member and the distal end of the shaft being configured to be axially displaceable with respect to one another a predetermined distance, during operation of the device (figure 10).

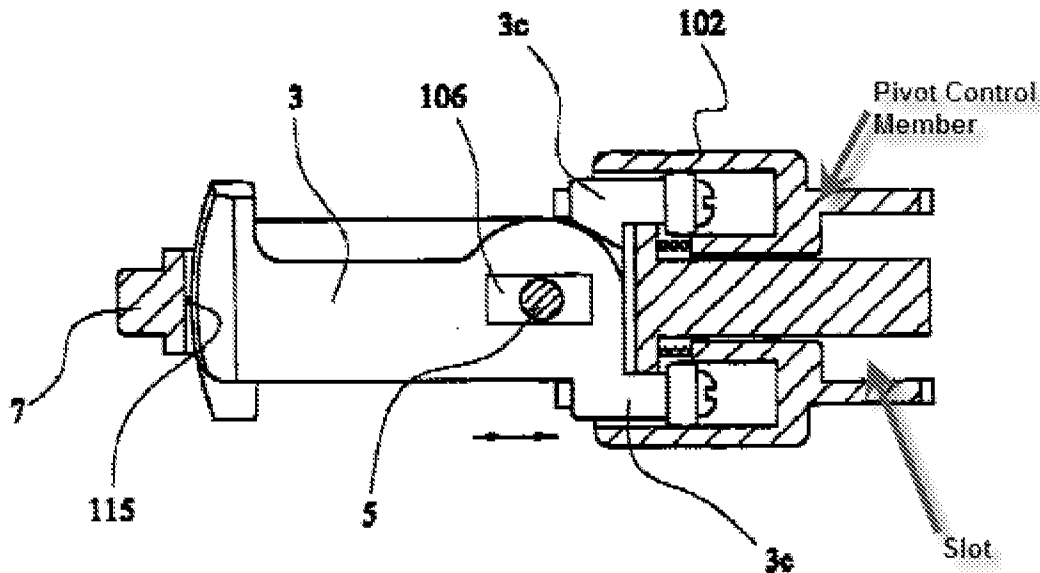


FIG. 10

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sonnabend et al. (WO 01/34040 A1) in view of Kuslich et al. (US 6,383,188).

Sonnabend et al. discloses the claimed invention except for the shaft having a threaded portion and a locking ring which can be fit onto the threaded portion of the shaft and the device having a removable spacer ring that can be placed between the threaded portion of the shaft and the locking ring.

Kuslich discloses a bone resection device that has a threaded portion (190,

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figure 2) and a locking ring (194, figure 2,) which is capable of being fit onto the threaded portion of the shaft (paragraph 33) and has a removable spacer ring (224, figure 2) which is capable of being placed between the threaded portion of the shaft and the locking ring (paragraph 36) to permit blade advancement within the shaft (paragraph 38). Accordingly it would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the device of Sonnabend to have the thread portion and locking ring connection with the spacer ring disposed between to permit blade advancement within the shaft as taught by Kuslich.

6. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sonnabend et al. (WO 01/34040 A1).

Sonnabend discloses the claimed invention except for the cam track being non-parallel to the axis shaft. It would have been an obvious matter of design choice to have the cam track non-parallel, since applicant has not disclosed that the non-parallel orientation solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the parallel cam track.

Response to Arguments

7. Applicant's arguments with respect to claims 1-25 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW LAWSON whose telephone number is (571)270-7375. The examiner can normally be reached on M-F, 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Barrett can be reached on 571-272-4746. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. L./
Examiner, Art Unit 3775

/Thomas C. Barrett/
Supervisory Patent Examiner, Art
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